

U.S. Patent Application No. 10/076,209
Amendment dated December 17, 2003
Reply to Office Action dated August 1, 2003

REMARKS/ARGUMENTS

Reconsideration and continued examination of this application are respectfully requested.

The amendment to the claims is editorial in nature and/or further defines what the applicants regard as their invention. Claims 1 and 2 have been amended to recite that the drilling fluid or mud contains at least one sealing or fluid loss additive as well as at least one hydrocarbon-based fluid. Claim 15 has been amended in a similar fashion. Claim 16 has been canceled by way of this amendment. New claims 17-25 have been added which are either dependent on claim 1 or claim 2. Full support for the amendment can be found throughout the present application including the claims as originally filed as well as pages 4, 7, 8, and 9. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

In the Office Action, at page 2, the Examiner rejects claims 1-4, 6, 8, 9, and 11-16 under 35 U.S.C. §102(e) as being anticipated by Krieger (U.S. Patent No. 6,422,325). The Examiner asserts that Krieger shows an oil based drilling fluid which contains potassium formate and an emulsifier. For the following reasons, this rejection is respectfully traversed.

Krieger is not prior art with respect to the present invention. In particular, Krieger has a filing date of October 5, 2001 while the present application is based upon and claims the benefit under 35 U.S.C. §119 of prior U.S. Provisional Patent Application No. 60/268,520 filed February 14, 2001. The claims of the present application as originally filed as well as amended are fully supported in this prior Provisional Patent Application. A copy of the Provisional Patent Application along with the U.S. Filing Receipt is attached for the Examiner's convenience. Accordingly, since Krieger is not prior art to the claimed

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invention, this rejection should be withdrawn.

The Examiner then rejects claims 1-6, 9-11, 15, and 16 under 35 U.S.C. §102(e) as being anticipated by Parlar et al. (U.S. 2001/0036905). The Examiner asserts that Parlar shows a gravel packing well fluid that comprises an oil based fluid containing potassium and cesium formate and a chelating agent which is an acid. The Examiner further indicates that the intended use by applicants as a drilling fluid does not distinguish over the prior art. For the following reasons, this rejection is respectfully traversed.

With respect to Parlar et al., this reference relates to gravel packing a well bore using gravel and a carrier fluid and this gravel packing system is used to remove a filter cake emulsion. As indicated in Parlar et al., for instance at page 1, Parlar et al. relates to completion type fluids and not drilling fluids. Claims 1, 2, and 15 recite a drilling fluid or mud that contains at least one alkali metal formate or monovalent carboxylic salt along with at least one emulsifier and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid. Parlar et al., since it relates to a completion fluid, does not teach or suggest its completion fluid containing a sealing or fluid loss additive. In fact, the presence of such an additive would defeat the purpose of a completion fluid. This is further reinforced at page 3, paragraph 29 of Parlar et al., where Parlar et al. states that drilling fluids may contain fluid loss control agents, but certainly Parlar et al. does not teach or suggest that the gravel packing-carrier fluid system of Parlar et al. would contain a fluid loss control additive. For these reasons, Parlar et al. does not teach or suggest the claimed invention and the rejection should be withdrawn.

At page 3 of the Office Action, the Examiner rejects claims 1, 11, 12, and 14 under 35 U.S.C. §102(b) as being anticipated by Dobson et al. (U.S. Patent No. 5,804,535). The

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Examiner asserts that Dobson et al. shows a drilling fluid and method of drilling which involves the use of formate salts. For the following reasons, this rejection is respectfully traversed.

Claim 1 recites that the drilling fluid or mud contains at least one hydrocarbon-based fluid. Unlike claim 1, Dobson et al. relates to an aqueous based well drilling and servicing fluid which does not contain a hydrocarbon-based fluid. Accordingly, Dobson et al. does not teach or suggest the claimed invention. With respect to claim 14 of the present application, the applicants do not see any mention in Dobson et al. of one reducing a portion of the solid weighting material with the use of an aqueous solution comprising at least one alkali metal formate. Claim 14 is not a product claim but is a process claim and recites the step of reducing the solid content in a drilling fluid by using an aqueous solution comprising at least one alkali metal formate. Dobson et al. does not teach such a method. In fact, one skilled in the art reading Dobson et al. would simply understand that a formate can be used along with other additives and that one would not reduce the solid weighting material. Certainly, the Examiner has not shown any mention in Dobson et al. with respect to this method. In fact, Dobson et al., at column 6, lines 28-35, specifically mentions that weight materials can be present and certainly does not mention or even hint that these weight materials can be reduced in view of the use of an aqueous solution containing at least one alkali metal formate. If anything, one skilled in the art reading this paragraph along with all other paragraphs in Dobson et al. would simply conclude that conventional amounts of weighting material can be used. Accordingly, for these reasons, the rejection should be withdrawn.

At page 3 of the Office Action, the Examiner also rejects claims 1, 11, 12, and 14,

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under 35 U.S.C. §102(b) as being anticipated by Loftin et al. (U.S. Patent No. 4,440,649).

The Examiner asserts that Loftin et al. shows a drilling fluid and method of drilling using formate salts. For the following reasons, this rejection is respectfully traversed.

Loftin et al. relates to a well drilling and completion fluid composition which is a water-based system. No hydrocarbons are present. Accordingly, in view of this difference, claims 1 and 11 as well as claim 12 would be not taught or suggested by Loftin et al.

Furthermore, with respect to claim 14, again, as set forth above, this claim relates to a method to reduce the solids content in a drilling fluid by substituting at least a portion of the solid weighting material with an aqueous solution comprising at least one alkali metal formate. Loftin et al. does not teach or suggest that one can reduce the amount of solid weighting material by use of an aqueous solution comprising at least one alkali metal formate. In fact, Loftin et al. teaches the opposite. For instance, at column 3, lines 38-52, Loftin et al. specifically teaches one skilled in the art that the compositions can optionally include a solid weighting agent and that amounts can be added to increase the density of the composition. Thus, if anything, Loftin et al. teaches one skilled in the art that solid weighting materials must be used to increase the density whereas claim 14 of the present application is the opposite – that is, solid weighting material can be reduced with the use of an aqueous solution comprising at least one alkali metal formate. Thus, one skilled in the art reading Loftin et al. would conclude that conventional amounts of weighting material are used irrespective of the other components present. Accordingly, Loftin et al. does not teach or suggest the claimed invention and the rejection should be withdrawn.

At the bottom of page 3 of the Office Action, the Examiner rejects claims 1, 2, and 7 under 35 U.S.C. §103(a) as being unpatentable over Krieger in view of Patel et al. (U.S.

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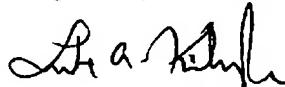
Patent No. 6,589,917 B2) and Santhanam et al. (U.S. Patent No. 6,339,048 B1). The Examiner relies on Krieger in the same manner as set forth in the early rejection. The Examiner then further asserts that Patel et al. shows the use of surfactants and other additives to formulate oil based drilling emulsions and that Santhanam et al. shows the use of emulsifiers as well. The Examiner believes it would be obvious to one of ordinary skill in the art to use emulsifiers in Krieger. For the following reasons, this rejection is respectfully traversed.

As indicated above, Krieger is not prior art to the claimed invention. For this reason alone, this rejection should be withdrawn.

CONCLUSION

If there are any other fees due in connection with the filing of this Preliminary Amendment, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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